

NEBRASKA DEPARTMENT OF HEALTH AND HUMAN SERVICES

GUIDANCE DOCUMENT

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Pursuant to
Neb. Rev. Stat. § 84-901.03

NEBRASKA

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DEPT. OF HEALTH AND HUMAN SERVICES



Jim Pillen, Governor

Nebraska Registries Connection Guide

Interoperability Data Exchange Connections

This document implements the Population Health Act and is intended to assist any facility, practice, or clinic including licensed and unlicensed who have a need to establish an interoperability data exchange connection with a State of Nebraska Public Health Registry. This document will lay out all the required steps and processes needed to implement such a data connection. There may also be variability depending on certain technical aspects of the registry or connection type, and it will also have variability based on differences in statutes and regulations. Where there is variability, it will be noted, and registry-specific technical documentation will have hyperlinks on the contact page in this main document. Links are also available on the Nebraska Public Health Data Exchange website located at <https://dhhs.ne.gov/Interoperability>. Subscribe to that page for updates to be notified of changes to the webpage and this document.

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Helping People Live Better Lives

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Statutory Authority

Nebraska Revised Statute (Neb. Rev. Stat.) for the applicable registries:

Population Health: Neb. Rev. Stat. §§ 81-6,123 to 81-6,126.

Immunization Registry: Neb. Rev. Stat. §§ 71-539 to 71-544 and Title 173 NAC 8.

Syndromic Surveillance Registry: Neb. Rev. Stat. § 71-552 and Title 173 NAC 9.

Electronic Lab Reporting (ELR): Neb. Rev. Stat. §§ 71-501 to 71-514.05, §§ 71-531 to 71-532, and § 71-1626 and Title 173 NAC 1.

Electronic Case Reporting (eCR): Neb. Rev. Stat. §§ 71-501 to 71-514.05, §§ 71-531 to 71-532, and § 71-1626 and Title 173 NAC 1.

Definitions

Data Sharing: Data sharing is the process of exchanging data between different entities or systems. In the context of healthcare, data sharing plays a crucial role in improving patient care and outcomes.

Data Connection: A data connection refers to the ability of devices to transmit and exchange data either among themselves or with a central server or network.

Electronic Health Record: The electronic health record (EHR) used at the facility, practice, or clinic that will be utilized for capture of clinical data.

Facility: The specific facility, practice, or clinic, including licensed and unlicensed, that is working to establish an interoperability data exchange connection with a registry created by statute in the state of Nebraska.

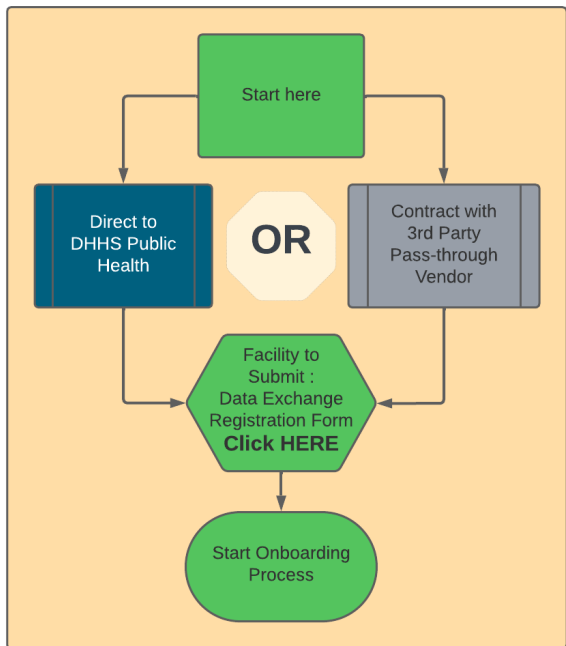
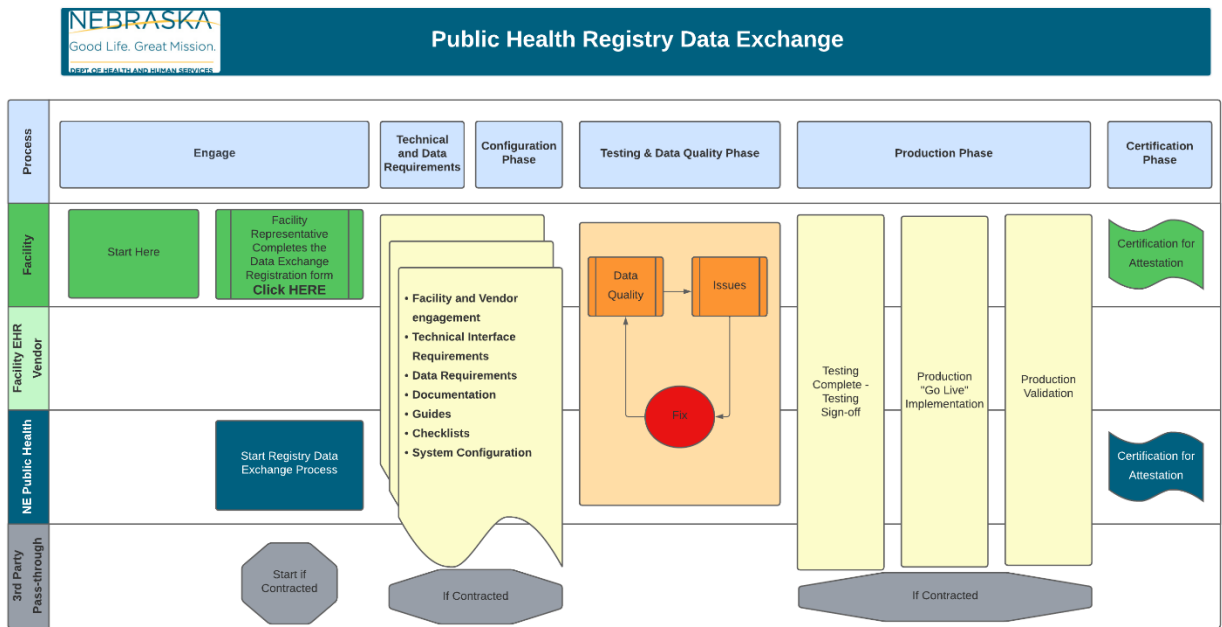
Test Data: Test data may be simulated data or real data used in the test environment. When using data, real or simulated, proper protections must be taken to keep the data secured and treat it as production data.

Third-Party Data Exchange: A vendor that functions as a data hub to transport data from one or many senders to one or many state registries or is the designated statewide health information exchange described in Neb. Rev. Stat. § 71-2455, which is the Nebraska Health Information Initiative. The designated health information exchanges responsibilities are outlined in Nebraska's Population Health Information Act in Neb. Rev. Stat. §§ 81-6,123 to 81-6,126.

Interoperability: The automated secure exchange of information between systems and/or applications.

Vendor: The information system provider that is handling any part of the data connection for interoperability data exchange transmission. This could be an in-house technical resource/department, an EHR provider, or a 3rd party provider which may include a health information exchange.

Interoperability Data Exchange Options Figure 1.



Engage

Facility has previously worked with a Nebraska Public Health Registry

How to add more facility sites to a current interoperability link with the state for the same registry:

If a facility has previously worked with a Public Health registry and is making changes to their connection format or adding connections from other sites, they should provide their registry's contact with information about the facility sites that are changing. E-mail and phone numbers are included in the contacts page at the end of this document. Changes can also be submitted through links found on the Nebraska Public Health Data Exchange website located at <https://dhhs.ne.gov/Interoperability>. If the facility is working with an optional third-party data exchange vendor, a representative of the facility is required to be on all calls about data sharing and interoperability connections.

NOTE: The applicable state registry must be notified by the facility if the connection type is changing. Some changes may require the submission of a new registration form.

Examples of changes would be:

1. Switching to a new EHR or software vendor.
2. Switching connection type to or from an optional third-party data exchange vendor or directly to the state registry.

Facility has not previously worked with a Nebraska Public Health Registry

How to set up a NEW interoperability connection or ADD a connection to an additional Public Health Registry.

If the facility has not worked with a particular registry before, the facility must begin by visiting the interoperability web page and filling out the registration form found via a link on that page. Go to the Nebraska Public Health Data Exchange website located at <https://dhhs.ne.gov/Interoperability>

1. A workflow visual can be found in Figure 1 and is posted on the Nebraska Public Health Data Exchange website (<https://dhhs.ne.gov/Interoperability>).
2. Registration is a requirement and can be completed at <https://epi-dhhs.ne.gov/redcap/surveys/?s=PJP8T9Y87FMKED9C>.
3. The Public Health registry contact will use the facility contact information to initiate the next steps and explain the onboarding process. The data exchange specifications for the Public Health registry with which the facility is engaging will be emailed to the following:
 - a. The facility contact;
 - b. The facility's EHR or software vendor if one is listed on the registration form;
 - c. The third-party data exchange vendor contact if the facility is using a third-party data exchange and indicated such on the registration form. If the facility is using an optional third-party data exchange vendor, that entity will be included on all relevant communications. The state can work with the facility if additional forms are needed to be completed when working with a third-party data exchange.

NOTE: A facility contact must be included in **all** communication with a state registry.

Technical and Data Requirements

Identifying the technical requirements and the data that is to be submitted

4. The Public Health registry team and the relevant parties will work on identifying the data being exchanged and the proper process for data extract submissions. Specifications for the extract must match the requirements listed on the technical specifications page for the applicable registry.

NOTE: For messaging standards HL7, Version 2.5.1 is recommended as it meets interoperability requirements, but the state can work with version 2.4 if necessary. The state will work with both while feasible. The state is taking steps to also work with the FHIR standard.

Configuration Phase

Configuration of data must meet the specific registry format

Throughout the Production and Configuration phase there will be several steps that are completed formally through a Docusign sign-off process. This step will be initiated by the DHHS Registry team.

5. The facility contact will be provided with the following steps to successfully meet specific Registry production environment requirements:
 - a. Registry contact will verify/provide each facility a unique identifier value (e.g., Org ID) for batch or message segments, and other registry-specific information. This information will be used to initiate test messages and for future production messages.
 - b. The initial test message can be a batched or individual file and should be test data (i.e., it should not contain real patient data), e-mailed directly to the registry contact who reached out initially. Once patient records have been sent to the state registries, the testing lead must contact the state registry staff by e-mail to request feedback. Registry contact will review the file for possible errors, then manually test the data exchange in the testing environment of the applicable registry.
 - c. Feedback on the test file, including a screen capture of system-generated responses and the text response file the registry system creates, is then e-mailed to the vendor.
 - i. If the test file was for an individual message and was fine, the vendor will be asked to submit a file containing all data applicable to the facility relevant to the registry with which they are working, in a single file. This is to ensure that when production data exchange is enabled, data quality is not compromised.
 - ii. If the test file needs adjustments, the facility will be asked to correct and re-submit the file(s) for testing until satisfactory results are reached.
 - d. Upon completion of base message testing, testing of the automated connection will be initiated. See the registry-specific attachment for specific connection information.
6. After initial setup and message testing is complete, an additional testing phase using live or production data in either batched or individual records is performed to ensure data mapping is correct. In this step the data will go into a User Acceptance Test (UAT) environment to ensure messages continue to be accurate, and the connection between systems is working and stable.

7. Upon successful completion of all automated testing with production data, data exchange in the production environment is turned on and allowed. A “go live” date and production monitoring period is then determined by all feed participants based on data submission intervals. Facilities and their vendors who complete successful testing for data exchange are expected to begin submitting production data in line with the agreed upon dates. This is to maintain integrity of the process and time undertaken to this point to assure successful data exchange and is in line with Interoperability expectations.
8. The Public Health registry team and the relevant parties will monitor the new production feed for a period determined by the registry team. The monitoring period should be determined by the expected number of submissions over time with enough messages to catch as many potential errors as possible and to ensure data completeness and accuracy. New production feed monitoring may last anywhere from one week to one year.
9. When required by applicable registry statutes, regulations, and policies, the Public Health registry team will then request a historical batch of data from the facility for loading into the registry. This historical data load will provide as complete a record as possible for other providers and authorized users who access the information daily.

All feed participants will sign off at various stages to prep for go-live.

When production is live, everyone will sign off into maintenance.

Retain these documents for your records.

Data Protection and Integrity

Preventing and remediating all data gaps

It is the responsibility of all parties involved in the data feed of the Public Health registries to communicate the known maintenance windows or any expected down time. This information should be provided as early as possible. While not all maintenance windows may result in down time, it is important to share those schedules to improve troubleshooting for any data gaps or feed errors.

Participants to the feed should be notified as soon as possible regarding all unexpected down time. Facilities experiencing down time can notify the impacted registry via email to each email listed on the contacts page, or if experiencing a down time that is affecting all feeds one email can be sent to dhhs.publichealthstatistics@nebraska.gov.

NOTE: If there is a question about whether a new registration should be submitted, such as migrating to a new EMR, contact the appropriate public health registry manager listed in the contact's section.

Requirements to receive an attestation based on working with a state registry

The Centers for Medicare & Medicaid Services (CMS) defines the requirements for "active engagement." These requirements can change based on what is published in the Final Rule in the Federal Register. Nebraska DHHS is a partner with facilities, the CMS, Centers for Disease Control and Prevention (CDC), Office of the National Coordinator for Health Information Technology (ONC), and others in interoperability requirements.

Facilities **must** meet the requirements of the Promoting Interoperability Program (PIP) to receive a letter of attestation from the applicable registry. To ensure the most efficient turnaround for attestation requests, facilities should update their contact information routinely with the applicable registries.

Updating the state registries with contact information

Currently, Immunizations and Syndromic Surveillance will send out routine scorecards that show when data was last received and allows the facility the ability to verify that the data is being received by the registry. Additional registries are working to incorporate scorecards. Scorecards can be used in the PIP evidence library in the event of a CMS audit. Facilities should update their contact information with the applicable registry on an annual basis or as changes occur.

Links can be found on the Nebraska Public Health Data Exchange website located at <https://dhhs.ne.gov/Interoperability>.

Contacts Page for Nebraska Registries

Immunization Registry

Email: DHHS.NESIIS@Nebraska.gov

Technical Guide: https://nesiis-dhhs-prod.ne.gov/docs/hl7_251_realtime_gts.pdf

Syndromic Surveillance Registry

Data/Regulations: DHHS.SSEDONHelpDesk@Nebraska.gov

Exchange/Connection: DHHS.PHINMS@Nebraska.gov

Technical Guide: https://dhhs.ne.gov/epi_docs/Syndromic-Implementation-Guide.pdf

Electronic Lab Reporting (ELR)

Email: DHHS.ELR@Nebraska.gov

Technical Guide: https://dhhs.ne.gov/epi_docs/NEDSS-Implementation-Guide.pdf

Electronic Case Reporting (eCR)

Email: DHHS.eCR@Nebraska.gov

Technical Guide: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=436

General questions, requests, errors, or downtime notifications

Email: DHHS.PublicHealthStatistics@Nebraska.gov